

# Cherry Creek North Improvements and Fillmore Plaza



## Landscape Performance Benefits

- Increased the District sales tax revenues by 16% (over \$1 million) in the first year after construction. This was more than double the rates of increase for both the city and the entire Denver Metro Area.
- Decreased retail vacancy rates from 13.6% in 2009 to 7.2% in 2012.
- Reduced crime in the District by 39%, from 180 incidents in 2009 to 110 in 2011.
- Projected to reduce mid-day air temperatures by 6°C (11°F) as a result of increasing tree canopy on the site by 49%.
- Reduces annual water consumption for irrigation by 3,376,000 gallons, saving \$17,600 annually, by replacing over half of the spray-irrigated turf with drip-irrigated, water-wise perennials and shrubs.
- Reduces annual energy consumption for outdoor lighting by 223,000 kilowatts, saving \$12,700 in energy and \$1,000 in maintenance and material costs each year.
- Removes up to 80% of solids in the stormwater runoff from Fillmore Plaza using an underground water treatment vault.
- Saved \$188,000 by reusing 331 light pole footings and bases in place on the site.

### Designer

Design Workshop, Inc.

### Land Use

Retrofit  
Mixed-use

### Project Type

Streetscape  
Courtyard/Plaza  
Retail

### Location

Fillmore Plaza,  
Denver, Colorado 80206

### Size

78 acres (16 blocks)

### Budget

\$18.5 million

### Completion Date

2010 - Phase 1; 2011 - Phase 2

## Overview

The 16-block Cherry Creek North retail district was designed to be Denver's premier outdoor shopping area. Yet deteriorating infrastructure, tired aesthetics and competition from an adjacent indoor mall had led to steady decline. Fillmore Plaza in the heart of the district was no longer a desirable public space since being closed to vehicular traffic in 1987. The new streetscape strengthens the retail environment, preserves the district's history and character, improves identity, beautifies the area, provides new lighting, improves signage, and adds 20 "Art and Garden Places" for shoppers to relax and linger. The redesigned Fillmore Plaza is now a vibrant hybrid street closed off to traffic only during planned pedestrian events.

## Sustainable Features

- Fillmore Plaza was reopened to vehicles as a hybrid two-way street. Retractable stainless steel bollards block vehicular traffic through the Plaza for special events. To accommodate both large and small events, the northern half is curbside, has no on-street parking and provides a relatively level area for functions. The southern half, with a 4" rolled curb section and 10 on-street metered parking spaces, has been designed for larger tents and event staging.
- 21,700 new plants, including 196 new trees were planted in the District. 5 mature red oaks and 2 mature locust trees were preserved and transplanted to other locations in the District.
- A computer-controlled, centralized "smart" irrigation system conserves water by eliminating leaks and water loss, preventing overspray, and more efficiently and accurately measuring of the amount of water needed for optimum plant health.
- A linear trench drain in Fillmore Plaza captures runoff and conveys it to an underground stormwater treatment vault where it is detained and filtered before being released into Denver's

storm sewer system. The vault, located under Fillmore Street south of 2nd Avenue, can manage runoff from up to a 5-year storm. Any excess will bypass the structure internally and externally (depending on the intensity) and exit the site at other downstream inlets.

- LED lights on 360 new pedestrian light fixtures, 83 banner poles and 21 directories save energy and reduce light pollution. One-bulb, custom light poles improve the quality of the pedestrian environment at night. The mercury-free LED street lamp bulbs are safe for landfills.
- 20 new "Art and Garden Spaces," which contain signature art features, benches, tables and chairs, create distinct areas throughout the district, enrich the pedestrian experience, and encourage people to relax and linger.
- 40 single-stream recycling receptacles are paired with trash receptacles at intersections to encourage recycling and reduce impact on local landfills.
- 160 pedestrian light poles, 12 benches, 10 trash receptacles, and 2,450 cubic yards of organic materials from the existing street were donated to local communities for reuse.
- Bike racks installed throughout the District make it convenient to navigate by bicycle. Two B-cycle stations were located within the District as part of Denver's bicycle sharing program.
- More than 53 new street signs, 37 street identification banners, 46 new marketing banners, 17 new parking directory signs, and 21 new free-standing directory map structures enhance navigation and walkability in the District.

### Challenge

Threatened by high on-going maintenance costs, deteriorating infrastructure, tired aesthetics and competition from an adjacent indoor mall that drained retail dollars from the stores and activity from the pedestrian realm, the design team faced the challenge of enlivening this stagnant retail district, with an emphasis on Fillmore Plaza. Not all stakeholders agreed on the design direction for Fillmore Plaza, with some wanting the space reopened to vehicular traffic and others wanting the plaza to remain solely pedestrian. If reopened, the new Fillmore Plaza would need to function both as a two-way street and as a hub capable of hosting large and small events. Another challenge was that retail needed to stay open during construction with access to the stores maintained.

### Solution

It was determined that the retail in the district was suffering from lack of access and exposure to shoppers. Through extensive visioning, public outreach, and multiple iterations, the design team was able to come up with a design that appealed to all stakeholders. Fillmore Plaza was redesigned as a hybrid street, open to two-way traffic with retractable stainless steel bollards that could close the street to vehicular traffic for events. The design would increase pedestrian space, enhance amenities, and strengthen the retail environment. All retail shops remained open during construction with a 5-ft pathway accessible to each entrance. Movable signs showed changes to parking and access, and weekly meetings informed retail owners of upcoming alterations.

### Cost Comparison

- Over half of the spray-irrigated turf grass area was replaced with drip-irrigated, water-wise perennials and shrubs. This reduces annual water consumption for irrigation by 3,376,000 gallons, saving \$17,600. The low-water plants are estimated to save an additional \$10,000 per year in reduced maintenance costs.

### Lessons Learned

- Since this was a renovation project, there were unforeseen objects under the ground, which created obstacles that altered the final design. Some of the biggest obstacles were the existing tree roots, which required adjustments to the planting and hardscape areas, causing project delays and change orders. The initial goal was to provide hardscape access to all of the new smart meters via an 18"-wide step-out strip behind the curb. However, in some instances the tree roots were in conflict with these strips. After deliberation from different city agencies, preserving the roots took priority, and the strips were removed. This has created additional maintenance due to foot traffic in the turf areas and shrub beds near the parking meters.
- Local skateboarders grew fond of the existing planter walls once they were resurfaced. Subsequently the Business Improvement District chose to install stainless steel 'blades' cut into the walls with 3' on-center spacing. This has seemed to deter widespread damage to the walls.

### Project Team

Client: Cherry Creek North Business Improvement District  
Landscape Architect: Design Workshop, Inc.  
Environmental Graphics Consultant: Stantec/CommArts

Civil Engineering Consultant: JVA, Inc.  
Structural Engineering Consultants: Martin/Martin, and Monroe and Newell  
Lighting Design Consultant: Patrick B. Quigley Associates  
Electrical Engineering Consultant: SSG MEP (formerly Scanlon Szynskie Group, Inc.)  
Irrigation Consultant: HydroSystems-KDI, Inc.  
Traffic Consultant: Fehr and Peers  
Horticultural Specialist: Bloomin' Designs  
Program Manager: NV5 (formerly Nolte Associates)  
General Contractor: The Weitz Company  
Unit Paver and Stone Wall Contractor: Gallegos Corporation  
Landscape Contractor: ValleyCrest Landscape Development  
Electrical Contractor: Weifield Group  
Environmental Graphics Contractor: Urban Fabrication  
Surveyor: Engineering Service Company  
Geotechnical Testing: Ground Engineering  
Concrete Wall Renovation Specialist: Restoration Concrete, Inc.  
Concrete Paving Contractor: Clem 'N' Sons Concrete  
Arborist/Tree Care: Swingle Lawn Tree and Landscape Care  
Demolition Contractor: OE Construction Corporation  
Traffic Control: Highway Technologies  
Major Product Suppliers: Endicott Clay Products, Kornegay, Landscape Forms, Miracote, Neenah Foundry, Pavestone

### **Role of the Landscape Architect**

The landscape architect created guiding principles, designed the site, reviewed the quality of construction, and headed a diverse team of specialists in environmental graphics, transportation planning, civil engineering, lighting design, electrical engineering, structural engineering, and irrigation design. In seeking public involvement and consensus, the design team held monthly meetings with extensive stakeholder input.

### **Case Study Brief Prepared By:**

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### **References & Resources**

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Life on Capitol Hill: CCM Facelift set to start (2009)

Additional Images













